

RAILWAY JOTTINGS.

From official returns, it appears that the amount of traffic for the week before last, on nearly 1,800 miles of railway, was 138,933; thus accounted for—76,451 for the conveyance of passengers only, 35,774 for the carriage of goods, and the remainder of 26,708 for passengers and goods together, not respectively apportioned; being an increase over the corresponding week of last year of 25,383.

—The *Times* thus sums up the capital likely to be wanted for the bills, of which the preambles are already proved:—"Irish railway bills read a third time in the House of Lords, 3,063,000. English and Scotch railway bills, read a third time in the House of Commons, 10,982,000. Total read a third time, 14,045,000. Preambles of other Irish railway bills proved in the House of Lords, 9,686,082. Preambles of other English and Scotch railway bills proved in the House of Commons, 15,929,804. Total, 25,615,891. Grand total of capital for which preambles have been proved, 39,660,897."—It appears from a report of the Board of Trade, that the number of accidents on railways, attended with personal injury or danger to the public, arising from causes beyond the control of passengers, were, during 1844, ten killed and seventy-four injured; owing to their own negligence or misconduct, seven killed, nine injured. The proportion which the number of passengers killed bears to the total number carried is:—In 1840, one in 274,085; in 1841, one in 852,073; 1842, one in 4,271,689; 1843, one in 8,524,175; 1844, one in 3,036,205; and in the first six months of 1845, one in 8,360,275.

—At two special meetings of the Birmingham and Midland Companies, recently held under the provisions of the "Relief Bill," for the consideration of the several projects of branches, &c., now before Parliament; the amount of capital represented in the rooms, taken collectively, was no less than 10,000,000.

—The Wearmouth Dock Company have assented to the sale of their dock to the Newcastle and Darlington Junction Railway Company. The bill for improving the ferries across the Humber in connection with the Great Grimsby and Sheffield Junction Railway, gives the company power to establish steamers and to erect works on the Lincolnshire Coast within seven years. On the other hand, it restrains the Dock Company at Hull from erecting similar works, and the company themselves from constructing works below high water mark without the consent of the Commissioners of Woods and Forests. The bill provides minutely for the rate of tolls on all sorts of goods, cattle, &c.—The transit of stone from the Purbeck quarries to the several railway termini at Poole, is about to be facilitated by the formation of a tram-road from near Wroth, to the waters of Poole harbour.—The middle arch of the Preston viaduct has been repaired, and the road over it restored.—One of the arches of the Skew-bridge over the Lewes-road, which had also been affected by the wetness of the season, is about to be rebuilt.—A large embankment on the Lancaster and Carlisle railway, near Wrey, south-west of Carlisle, also lately gave way and destroyed several farm buildings near its strong breast wall.—The foundation-stone of the new Tunnel-bridge, over the river Conway, for the Chester and Holyhead Railway, was laid on Friday before last.—A station is to be erected at Shenfield for the Eastern Counties Railway.—The fact that Bomford, Brentwood, &c., on the Eastern Counties line, now carry on a thriving trade in milk with the metropolis, is a striking illustration of the creative effect of railways on the trading resources of a district. Not many years since, the inhabitants of the district in question would have ridiculed the idea of such a trade.—The Eastern Union was lately opened and part of the carriages for the traffic of the line have arrived at Ipswich. The temporary station is in rapid progress, and the spot presents a scene of much animation.—The works on the Caledonian Railway are in active progress along its whole extent. There are upwards of 7,000 men at work on the line, and there is every prospect of a great portion of it being open for traffic in the summer of 1847.—The whole of the North British line from Berwick to Edinburgh is expected to be opened on the 1st of

July.—A trip from Leicester to Edinburgh via Newcastle by rail and thence by steamer, is in contemplation for the 23rd of June next. The expense of transit will be less in proportion than that of any similar excursion. Special trains to London and Leeds are also shortly to be announced, and we perceive that a cheap and expeditious holiday trip from Liverpool to London is to take place on the 30th instant, returning on the 13th of June, and on the 1st June returning on the 8th, thus allowing parties fourteen days in the one case, and a week in the other, to see the lions of the great metropolis.—The Newcastle and Carlisle Company have commenced running cheap trains on Sundays to all the stations along their lines, at the low rate of one half-penny per mile.—The directors of the Lancaster and Carlisle Railway announce, that having now given to the Lancaster Canal Company, the requisite notice of their intention to take possession of the Lancaster and Preston line on the 1st of July, the present charges on that line will be thenceforth considerably reduced.—The Great Western Company are building a class of passenger engines 25 tons in weight with driving wheels of 8 feet diameter, which will be equivalent to 120 tons at seventy miles an hour!—One of Stephenson's patent six-wheel engines lately ran from Birmingham to Wolverton, a distance of fifty-two and a half miles, in one hour and ten minutes with a train containing 100 tons of goods. When the engine reached Ackem-on-bridge, near the station, the funnel was struck down, its height having exceeded by 6 inches the altitude of the arch of the bridge.—The site of the Lincoln station for the Nottingham and Lincoln line will cost the Midland Company, it is said, but little short of 20,000. It will include an area of ten or twelve acres. For one purchase they have already given 6,000, for another 5,500, and for a third they are at present in treaty.—The South Eastern Company have kindly offered their spare land for allotments for the labouring poor.—It is pleasing also to hear that the Southampton and Dorchester, and the Wilts, Somerset, and Weymouth Railway Companies have resolved not to injure that venerable piece of antiquity the Amphitheatre in Fordington-field, near Dorchester. Both lines will pass within a few feet of it.—Some idea may be formed of the quantity of coke that will be made at the Blackwall Terminus of the Thames Junction Railway, from the fact that forty coke ovens are now in course of erection, and when they are completed, forty more will be erected.—The electric telegraphs, those "Highways of thought" as they have been aptly called, are rapidly pervading the whole face of the country. The communication from London to Masborough is nearly completed. Leeds, Manchester, and York, are fast approaching towards their electrical community of intercourse, and in fact, on almost every line of railway they are running along like nerves associated with these arteries of commerce. Some recent novel feats of this wonderful invention have been the subject of gossip, and are not unworthy of record as the first glimmerings of a new world of wonders. The solicitor to a bankrupt's assignees at Southampton, lately communicated with the Commissioner of Bankrupts at Serjeant's Inn through the electric telegraph, and thus procured an adjournment of his case, which it would otherwise have been impossible to have accomplished. Mr. Smith, of Serjeant's Inn, to whom the express was forwarded, has stated, that on one occasion he had a message from Southampton reduced to writing and delivered at his office in seventeen minutes after its dispatch from Southampton. It is also said, that a pay-serjeant at Portsmouth, who had absconded after robbing his captain, was secured at the London terminus of the South Western, to which his flight was notified by telegraph, while thus on his way to his own doleful very unexpected capture.

The taking down of the spire of the Cathedral of St. Denis has just been completed. Each workman receives a present of 50 francs for the danger he has incurred. The Commissioner of Civil Buildings is to proceed to St. Denis this week, to decide what is next to be done.—*Paris paper.*

NEW ATMOSPHERIC RAILWAY, WITHOUT A LONGITUDINAL VALVE.

At a meeting of the Society of Arts, on May 20th, a paper was read explanatory of an invention by Mr. C. H. Collins, and for which he has taken out a patent.

The object of this invention is to prevent the loss of power caused by the leakage of air through the longitudinal valve, still in use in atmospheric railway schemes; and Mr. Collins aims at the accomplishment of this very desirable object by boldly dispensing with the longitudinal valve altogether, or at least by destroying its unity, and cutting it up, as it were, into a multitude of small valves, ingeniously protected by air-tight apparatus,—through which, nevertheless, the power of the interior appears to be effectually conveyed to the exterior purpose, so as to accomplish all the ends of the ordinary atmospheric machinery, without its disadvantages, at least, if not without equivalent disadvantages of another sort.

The traction-pipe is first of all provided with longitudinal slits, of about 25 feet each in length, which slits are divided from each other by an equal length of entire pipe. But each slit is covered by an air-tight box, bolted on bottom up along the slit, and with no opening whatever, except at each extremity, to which is fitted on an air-tight slide-valve. The traction-pipe, as usual, is laid between the rails, the slit and boxed side uppermost; while through each box thus superimposed (but not through the pipe), an iron "driving rod," longer than any one box or slit, threads its way, running from one to the other, of course, through their valved extremities, the rod exactly fitting the rectangular apertures, closed on all other occasions by the sliding valves. On this needle-like rod are a two-fold series of notches, corresponding to a two-fold series of forks, provided with friction-wheels, and working in sockets with springs; one series being fixed on a stage, or bar, in the interior of the pipe, supported at one end by the piston, at the other by a false piston, and between these by a wheel running along the under surface of the interior of the pipe. The other series is similarly fixed on a bar, running parallel with the pipe, the slits, the boxes, and the piston-stage, but connected with the carriage; and the carriage-bar and the piston-bar, as well as the driving-rod, are longer than any one box, or than any one of the slits which the boxes cover, so that when a box is right between them, they project beyond its valved extremities, and the two end-forks of each are about 30 feet apart, while between these extremities the forks correspond with the notches of the driving-rod, so that when one is in gear the others also would, unless prevented.

The extremities of each box are sloped, or inclined, both within and without, in such a way that the forks within the pipe, while sliding freely in their sockets, as their springs urge, and as their friction-wheels permit, rise through each slit along one of the inclined extremities of each box, run along the interior of the box, and dip again along the other inclined extremity into the pipe, and along its unslit inner surface. The forks outside, in like manner, rise along one of the sloping ends of each box, run along the top, and again fall along its other sloping end, and run along the top of the unslit part of the pipe.

The forks of the piston-bar within, the notches of the needle-like driving-rod, and the forks of the carriage-bar without, thus work in mutual connection, so that, although the interior forks quit the notches of the driving-rod every time they are made to dip out of the boxes, or the slits which they cover, into the unslit pipe itself, and although the exterior forks only gear with the notches of the driving-rod when they fall along the sloping end of one box, and are made to quit them when they rise along the sloping end of the next, yet one at least of the forks of each set will always be in gear with the driving-rod,—the first one being always in gear before the last one quits its hold.

Thus, while the driving-rod threads its way through the box valves, impelled by the onward movement of the piston, communicated to it by the piston-stage-forks in the interior, the same notched driving-rod, thus driven itself, will impel the carriage by means of the gearing of the carriage-bar-forks with its appropriate series of notches. And thus, while